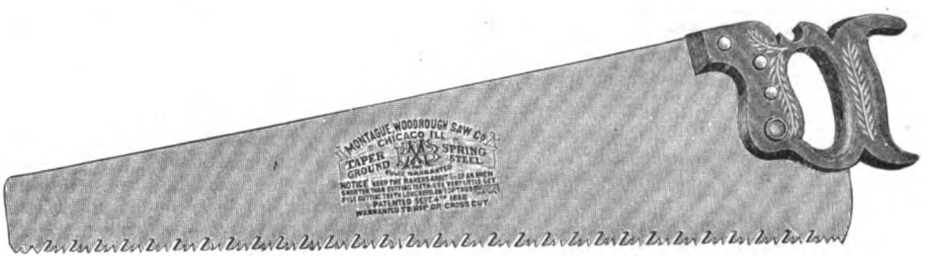
New B. M. T. Saw.

The new patent tooth B. M. T. Saw, devised by Warren Bundy, Minnesota City, Minn., and manufactured by the Montague-Woodrough Saw Company, 211 and 213 Randolph street, Chicago, Ill., is represented in the accompanying illustration. As shown in the cut, the teeth are arranged in sets of three each and after each set is a recess or gullet for the reception of the sawdust liberated. There are two distinct kinds of teeth in each set, two cutting teeth and one clearing tooth. The cutting teeth are made with the cutting edge on the outer edge of each tooth, and are arranged in step form, with a rise from the body of the saw of about 45°. The cutting edge is on opposite sides in each pair of teeth, so that the bevels face each other, thus making two parallel gashes in the wood. The purpose of the clearing tooth, which is slightly below the points of the cutting teeth and which is formed like a common mortising chisel, with its cutting edge at a right angle to the gash, is to clear away the wood between the two gashes into the recess or gullet before it, thus leaving the next pair of cutting teeth free from obstruction to their work. On drawing the saw back into the gash, the sawdust is pushed out of the gullet, leaving it clear for the next stroke. The sharp chisel edge of the cutting teeth is referred to as leaving the sides of the wood as smooth as though planed, and, as little set is required, the saving of material is referred to as important, while the absence of roughness and loose fibers lessens the friction, enabling the saw to work successfully with much less power than the V-tooth saw. With this construction it is claimed that the saw will cross-cut, rip or cut in a miter box with equal facility one-third faster than any saw now made specially for either of these purposes. Alluding to circular saws made with teeth of this pattern, the manufacturers refer to the smoothness of the cut, the saving of material lost in dressing, and the length of time that they will run without filing. They point out that the use of cross-cut and ripping tables is made unnecessary, and that no time need be wasted, as at present, by substituting one saw for another. In jig saw work it is stated that the material is cut so smooth that mouldings, &c., are ready for use when they leave the saw. The adaptation of this style of tooth to band saws is also referred to.

It is also pointed out that saws with this pattern of teeth are easier to file and keep in order than others, as with the ordinary teeth it is necessary to file two teeth at a time, making it difficult to have them of exactly the same hight, while in this pattern of saw it is explained that, after jointing, the clearing tooth is first filed $\frac{1}{32}$ inch below the level of the cutting teeth, holding the file almost parallel with the blade of the saw and at a slight upward angle, thus clearing the point of the cutting teeth in front and falling below the bevel of the cutting teeth in back. After all the clearing teeth have been filed the cutting teeth are filed to a point one at a time, so that all can be brought to an exact level. When this is done an oilstone laid flat on the side of the saw and run up and down a few times will reduce, it is said, any irregularity in the set and give smooth cutting. The set is given by placing the tooth on a piece of flat steel with a slight bevel on the edge and striking it with the pein of a hammer in such a way as to set only the front or cutting edge, where in the ordinary saw the whole tooth is turned. The company have a special saw-set made for this purpose, which is referred to as doing its work exactly. The circular issued by the company gives a full description of this saw, and illustrates the manner in which it is filed, and the price list.



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